UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
5 POST OFFICE SQUARE, SUITE 100
BOSTON, MA 02109-3912

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

MAY 29 2013

Cliff Gurnham, Director of Operations
Guilford Board of Education
701 New England Road
Guilford, Connecticut 06437

Re: PCB Cleanup and Storage for Disposal Approval under 40 CFR §§ 761.61(a) and (c); § 761.62(c); and § 761.79(h)
Guilford High School
605 New England Road, Guilford, Connecticut

Dear Mr. Gurnham:

This is in response to the Notification[1] by the Town of Guilford, Connecticut (the Town) for approval of its plan to address PCB contamination at the Guilford High School (GHS) located at 605 New England Road in Guilford, Connecticut. GHS contains PCB-contaminated materials in the 1958 and 1968 structures (together, "the Site") that exceed the allowable PCB levels under 40 CFR § 761.20(a), § 761.61, and § 761.62. Specifically, PCBs have been found in caulk, glazing, and tar/tar paper, in building substrates, and in asphalt and soils.

Based on the identified PCB contamination at the Site, the Town conducted indoor air and surface area sampling. PCB indoor air concentrations were reported at less than (<) 70 ng/m^3 and surface wipe sample results for indoor surfaces (e.g. desks and countertops) were < 1 $\mu g/100\ cm^2$ with exception of 2 locations which were re-cleaned with subsequent sample results reported at < 1 $\mu g/100\ cm^2$.

The Town has implemented short-term remedial activities that include the following measures:

- Placement of metal barriers over exterior air intake louvers where PCB caulk is present
- Placement of metal barriers over accessible interior expansion joints where PCB caulk is present

(1) The Notification was prepared by Tighe & Bond on behalf of the Town to satisfy the notification requirements under 40 CFR §§ 761.61(a)(3) and (c), § 761.62(c) and § 761.79(h). Information was submitted dated February 2013 (Self-Implementing PCB Cleanup Plan (SIDP)); February 1, 2013 (email regarding surface area wipe sample results); February 7, 2013 (email regarding surface area cleaning); April 16, 2013 (SIDP Certification from Town); April 17, 2013 (Response to EPA Comments); May 8, 2013 (email Response to EPA Comments); May 17, 2013 (email revised schedule and outreach information); May 20, 2013 (email information on public notice and verification sampling); and May 21, 2013 (revised tables and clarification on PCB abatement and sampling). These submittals shall be referred to as the "Notification".

The Town has requested that the PCB-contaminated materials (i.e., *PCB remediation waste* and *PCB bulk product waste*) remain in-place without further abatement of the PCBs until construction of a new school with occupancy estimated in September 2015.

The Site will be demolished once the new school is in use and the Town has proposed a plan to remove the PCBs prior to the demolition which includes the following:

- Remove *PCB bulk product waste* (e.g., caulk, glazing, tar paper/tar from gymnasium concrete floor, and substrates in contact with these PCB products) prior to building demolition and dispose in accordance with § 761.62
- Remove PCB-contaminated building substrates with less than (<) 50 parts per million (ppm) and dispose as a *PCB remediation waste* in a state permitted landfill in accordance with § 761.61(a)(5)(i)(B)(*2*)(*ii*), if supported by sampling data
- Remove and dispose of univents and their components (e.g., filter, capacitors) in accordance with § 761.61 and § 761.62, as applicable
- Remove soil and asphalt with PCB concentrations greater than (>) 1 ppm but < 50 ppm and disposal in a state permitted landfill in accordance with § 761.61(a)(5)(i)(B)(*2*)(*ii*)
- Conduct verification sampling to confirm that PCB concentrations remaining at the Site are less than or equal to (≤) 1 ppm

The Town has determined that certain building materials, which have PCB concentrations at < 50 ppm are *Excluded PCB Products.* Under the PCB regulations, *Excluded PCB Products* may be used and there is no requirement to remove these building materials or to decontaminate surfaces that are in contact with these building materials. As indicated in the Notification, these materials will be removed prior to Site demolition and will be disposed of under the Connecticut Department of Energy and Environmental Protection (CTDEEP) Regulations.

Based on EPA's review, the information provided in the Notification meets the requirements under 40 CFR §§ 761.61, 761.62, and 761.79(h) for removal and disposal of *PCB bulk product waste* and for removal and/or decontamination of *PCB remediation waste*. Further, the proposed decontamination and disposal activities are consistent with the requirements and standards established under § 761.61(a), § 761.62, § 761.79 for similar types of PCB-contaminated materials.

EPA finds that the short-term in-place storage for disposal of *PCB bulk product waste* and the short-term disposal of *PCB remediation waste* (i.e., soil and asphalt) will not present an unreasonable risk to public health or the environment. EPA may approve these actions under §§ 761.61(c) and 761.62(c).

The Town has proposed a deviation from the verification sampling frequency requirements specified under § 761.61(a)(6) for *porous surfaces*. The verification sampling for soils will be conducted in accordance with Subpart O. Based on the results of the PCB sampling to-date and the proposed removal and disposal approach, EPA has determined that the sampling plan and verification sampling frequency are adequate to confirm that PCB cleanup standard has been met. EPA finds that the sampling proposed by the Town will not create an unreasonable risk to public health or the environment and EPA may approve the alternative sampling under § 761.61(c).

Based on the interim measures that have been implemented, the results of indoor air and surface wipe sampling to-date, and the fact that the Town is proposing to build and occupy a new school in 2015, EPA is approving the proposed plan and the Town may proceed with its plan in accordance with 40 CFR §§ 761.61(a) and (c); § 761.62(c); § 761.79(h); its Notification; and this Approval, subject to the conditions of Attachment 1. Please be aware that EPA's approval for the temporary in-place management of PCBs shall expire on September 1, 2015 and the Town shall be required to conduct removal of the PCBs as detailed in the Notification (see Attachment 1, Condition 1).

Under this Approval EPA is requiring monitoring of indoor conditions at the school during the interim period while the PCB caulk, glazing, and tar paper/tar and associated building substrates remain temporarily in-place under this Approval. EPA is reserving its rights to require additional investigation or mitigation measures at a Site should the monitoring results or other information indicate an unreasonable risk of injury to school users.

EPA expects the Town to continue its ongoing outreach to the school users as well as to other interested stakeholders, including developing a flyer to send to school users regarding the project and enhancement of the project website. Please note that this Approval requires that the school's monitoring plan include a community outreach component (see Attachment 1, Condition 15).

This Approval does not release the Town from any applicable requirements of federal, state or local law, including the requirements related to cleanup and disposal of PCBs or other contaminants under the CTDEEP regulations.

This Approval does not address removal and disposal of the three (3) transformers which are located at the Site nor does it address cleanup of any PCB contamination that may be associated with these transformers. As indicated in the Notification, these transformers are the property of Connecticut Light & Power (CL&P). The Town will coordinate closure of the transformer vault with CL&P during Site demolition. If PCB contamination is identified in the transformer vault, a cleanup plan to address the contamination may be required under § 761.61.

Correspondence and questions regarding this Approval should be directed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

EPA shall not consider this project complete until it has received all submittals required under this Approval. Please be aware that upon EPA receipt and review of the submittals, EPA may request any additional information necessary to establish that the work has been completed in accordance with 40 CFR Part 761, the Notification, and this Approval.

Sincerely,

James T. Owens, III
Director, Office of Site Remediation & Restoration

cc: James Olsen, Tighe & Bond
Brian Toal, CTDPH
Gary Trombly, CTDEEP
File

Attachment 1: Approval Conditions (7 pages)
Attachment 2: Table 2A. Summary of Source and Substrate Material Removal Requirements (4 pages)

ATTACHMENT 1

PCB CLEANUP AND STORAGE FOR DISPOSAL APPROVAL CONDITIONS GUILFORD HIGH SCHOOL ("the Site") 605 NEW ENGLAND ROAD, GUILFORD, CONNECTICUT

GENERAL CONDITIONS

1. This Approval is granted under the authority of Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. § 2605(e), and the PCB regulations at 40 CFR Part 761, and applies solely to the *PCB bulk product waste* and the *PCB remediation waste* located at the Site and identified in the Notification.[1]

   a. In the event that the Town identifies other PCB-contaminated materials that were not addressed in the Notification, the Town shall be required to notify EPA and to submit a separate PCB cleanup plan in accordance with 40 CFR Part 761 or the Town may submit a modification to its Notification(s) in accordance with Condition 17.

   b. Approval for temporary in-place management (i.e., storage for disposal) of *PCB bulk product waste* (i.e., caulk, glazing, tar paper) and short-term disposal of *PCB remediation waste* (e.g., soils and asphalt) shall expire on September 1, 2015 unless revoked, suspended, modified, extended or terminated. The Town shall initiate removal/abatement of the PCB-contaminated materials at the Site within 90 days of this expiration date (e.g., by December 2, 2015).

   c. Request for an extension of this risk-based approval for temporary in-place management of the PCB wastes shall be made in writing at least 120 days prior to September 1, 2015. Request for an extension shall include a justification for the extension. EPA may require the submission of additional information in connection with any extension request.

2. The Town of Guilford (the Town) shall conduct on-site activities in accordance with the conditions of this Approval and with the Notification.

3. In the event that the cleanup plan described in the Notification differs from the conditions specified in this Approval, the conditions of this Approval shall govern.

4. The terms and abbreviations used herein shall have the meanings as defined in 40 CFR § 761.3 unless otherwise defined within this Approval.

---

[1] The Notification was prepared by Tighe & Bond on behalf of the Town to satisfy the notification requirements under 40 CFR §§ 761.61(a)(3) and (c), § 761.62(c) and § 761.79(h). Information was submitted dated February 2013 (Self-Implementing PCB Cleanup Plan (SIDP)); February 1, 2013 (email regarding surface area wipe sample results); February 7, 2013 (email regarding surface area cleaning); April 16, 2013 (SIDP Certification from Town); April 17, 2013 (Response to EPA Comments); May 8, 2013 (email Response to EPA Comments); May 17, 2013 (email revised schedule and outreach information); May 20, 2013 (email information on public notice and verification sampling); and May 21, 2013 (revised tables and clarification on PCB abatement and sampling). These submittals shall be referred to as the "Notification".

5. The Town must comply with all applicable federal, state and local regulations in the storage, handling, and disposal of all PCB wastes, including PCBs, PCB Items and decontamination wastes generated under this Approval. In the event of a new spill during response actions, the Town shall contact EPA within 24 hours for direction on PCB cleanup and sampling requirements.

6. The Town is responsible for the actions of all officers, employees, agents, contractors, subcontractors, and others who are involved in activities conducted under this Approval. If at any time the Town has or receives information indicating that the Town or any other person has failed, or may have failed, to comply with any provision of this Approval, it must report the information to EPA in writing within 24 hours of having or receiving the information.

7. This Approval does not constitute a determination by EPA that the transporters or disposal facilities selected by the Town are authorized to conduct the activities set forth in the Notification. The Town is responsible for ensuring that its selected transporters and disposal facilities are authorized to conduct these activities in accordance with all applicable federal, state and local statutes and regulations.

8. This Approval does not: 1) waive or compromise EPA's enforcement and regulatory authority; 2) release the Town from compliance with any applicable requirements of federal, state or local law; or 3) release the Town from liability for, or otherwise resolve, any violations of federal, state or local law.

9. Failure to comply with the Approval conditions specified herein shall constitute a violation of the requirement in § 761.50(a) to store or dispose of PCB waste in accordance with 40 CFR Part 761 Subpart D.

NOTIFICATION AND CERTIFICATION CONDITIONS

10. This Approval may be revoked if the EPA does not receive written notification from the Town of its acceptance of the conditions of this Approval within 10 business days of receipt.

11. The Town shall submit the following information for EPA review and/or approval prior to initiation of remedial activities at the Site:

    a. a certification signed by its selected contractor, stating that the contractor(s) has read and understands the Notification, and agrees to abide by the conditions specified in this Approval;

    b. a contractor work plan, prepared and submitted by the selected demolition or abatement contractor(s) describing the containment and air monitoring that will be employed during abatement activities. This work plan should also include information on how and where wastes will be stored, with appropriate figures, and disposed of, and on how field equipment will be decontaminated; and,

c. a certification signed by the selected analytical laboratory, stating that the laboratory has read and understands the extraction and analytical methods and quality assurance requirements specified in the Notification and in this Approval.

REMEDIAL AND STORAGE FOR DISPOSAL CONDITIONS

12. To the maximum extent practical, engineering controls, such as barriers, and removal techniques, such as the use of HEPA ventilated tools or construction of a negative air containment system with a HEPA ventilation system to control emissions, shall be utilized during removal processes. In addition, to the maximum extent possible, disposable equipment and materials, including PPE, will be used to reduce the amount of decontamination necessary.

13. PCB-contaminated materials shall be decontaminated and confirmatory sampling and analysis shall be conducted as described below:

    a. All PCB caulk, glazing, and tar/tar paper and associated PCB-contaminated building substrates (i.e., *PCB bulk product waste*) shall be removed as described in the Notification and shown on Attachment 2.

    b. The decontamination standard for building *porous surfaces* (e.g., concrete masonry units (CMU), concrete, glazed brick and brick) shall be less than or equal to (≤) 1 part per million (ppm).

        i) Sampling for *porous surfaces* shall be performed on a bulk basis (i.e., mg/kg) and reported on a dry weight analysis. Sampling for *porous surfaces* shall be conducted in accordance with the EPA Region 1 *Standard Operating Procedure for Sampling Porous Surfaces for Polychlorinated Biphenyls (PCBs) Revision 4, May 5, 2011*, at a maximum depth interval of 0.5 inches and at the frequency detailed in the Notification and shown on Attachment 2.

        ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846 for solid matrices and Method 3500B/3510C of SW-846 for aqueous matrices; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction or analytical method(s) is validated according to Subpart Q.

        iii) In the event **any** verification sample is greater than (>) 1 ppm, the Town shall contact EPA to determine what modifications, if any, need to be made to the sampling plan or frequency or to the cleanup and disposal plan(s) for the remainder of the project.

c. The cleanup level for bulk *PCB remediation waste* (i.e., soil) at the Site shall be ≤ 1 ppm.

i) Bulk *PCB remediation waste* samples shall be collected on a bulk basis (i.e., mg/Kg) and reported on a dry-weight basis. Verification sampling shall comply with Subpart O.

ii) Chemical extraction for PCBs shall be conducted using Methods 3500B/3540C of SW-846 for solid matrices and Method 3500B/3510C of SW-846 for aqueous matrices; and, chemical analysis for PCBs shall be conducted using Method 8082 of SW-846, unless another extraction or analytical method(s) is validated according to Subpart Q.

iii) In the event that visible caulk debris is present in the soil areas that will be cleaned up under the Notification, the caulk debris shall be removed and disposed of as a *PCB bulk product waste* in accordance with § 761.62.

iv) In the event that visible caulk debris is present in soils or other ground surfaces that are not proposed for cleanup under the Notification, the Town shall contact EPA for discussion on sampling and/or cleanup requirements.

d. The Town shall submit a long-term monitoring plan (MP) for indoor air and indoor surfaces to support the temporary in-place management of the PCB wastes (see Condition 15).

14. All PCB waste (regardless of concentration) generated as a result of the activities described in the Notification, excluding any decontaminated materials, shall be marked in accordance with § 761.40; stored in a manner prescribed in § 761.65; and, disposed of in accordance with 40 CFR § 761.61(a)(5) or § 761.62, unless otherwise specified below:

a. Decontamination wastes and residues shall be disposed of in accordance with 40 CFR § 761.79(g).

b. Moveable equipment, tools, and sampling equipment shall be decontaminated in accordance with either 40 CFR § 761.79(b)(3)(i)(A), § 761.79(b)(3)(ii)(A), or § 761.79(c)(2).

c. PCB-contaminated water generated during decontamination shall be decontaminated in accordance with 40 CFR § 761.79(b)(1) or disposed of under § 761.60.

INSPECTION, MODIFICATION AND REVOCATION CONDITIONS

15. Within twenty (20) days of receipt of this Approval, the Town shall submit for EPA's review and approval, a long-term MP for indoor air and indoor surfaces to support the effectiveness of the implemented interim measures and the temporary in-place management of the PCB wastes. The Town shall incorporate any changes to the MP required by EPA.

    a. The MP shall include: a description of the activities that will be conducted, including sampling protocols, sampling frequency, and analytical criteria and reporting requirements (see Condition 16).

    b. The MP shall include a communications component which details how the monitoring results will be communicated to the School users, other on-site workers, and interested stakeholders.

    c. The Town shall submit the monitoring results to EPA. Based on its review of the monitoring results, EPA may determine that modification to the MP is necessary in order to support the in-place temporary storage for disposal of the PCB wastes at the Site.

    d. Activities required under the MP shall be conducted until such time that EPA determines, in writing, that such activities are no longer necessary.

16. Results of the indoor air and surface wipe sampling required under the MP shall be provided in writing, to EPA within 7 days of receipt of the laboratory results. In the event that PCB concentrations in the wipe samples are greater than or equal to ($\geq$) 1 $\mu g/100\ cm^2$ or, in the air samples are $\geq 300\ ng/m^3$, the Town shall notify EPA within 24 hours of receiving the results and shall describe actions that will be taken to investigate and/or address the exceedence(s).

17. Any modification(s) in the plan, specifications, or information submitted by the Town, contained in the Notification, and forming the basis upon which this Approval has been issued, must receive prior written approval from the EPA. No action may be taken to implement any such modification unless the EPA has approved of the modification, in writing. The EPA may request additional information in order to determine whether to approve the modification. If such modification involves a change in the use of the school which results in exposures not considered in the Notification, the EPA may revoke, suspend, and/or modify this Approval upon finding that this cleanup and risk-based storage for disposal approval may pose an unreasonable risk of injury to health or the environment due to the change in use. EPA may take similar action if the EPA does not receive requested information needed from the Town to make a determination regarding potential risk.

18. Any departure from the conditions of this Approval without prior, written authorization from the EPA may result in the revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

19. Any misrepresentation or omission of any material fact in the Notifications or in any future records or reports may result in the EPA's revocation, suspension and/or modification of the Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

20. Approval for these activities may be revoked, modified or otherwise altered: if EPA finds a violation of the conditions of this Approval or of 40 CFR Part 761, including EPA's PCB Spill Cleanup Policy, or other applicable rules and regulations; if EPA finds that these activities present an unreasonable risk to public health or the environment; or if EPA finds that changes are necessary to comply with new rules, standards, or guidance for such approvals. The Town may apply for appropriate modifications in the event new rules, standards, or guidance comes into effect.

21. The Town shall allow any authorized representative of the Administrator of the EPA to inspect the Site and to inspect records and take samples as may be necessary to determine compliance with the PCB regulations and this Approval. Any refusal by the Town to allow such an inspection (as authorized by Section 11 of TSCA) shall be grounds for revocation of this Approval.

RECORDKEEPING AND REPORTING CONDITIONS

22. The Town shall prepare and maintain all records and documents required by 40 CFR Part 761, including but not limited to the records required under Subparts J and K. A written record of the decontamination and the analytical sampling shall be established and maintained by the Town in one centralized location, until such time as EPA approves in writing a request for an alternative disposition of such records. All records shall be made available for inspection to authorized representatives of EPA.

23. The Town shall submit a final report in electronic and hard copy, to the EPA within 60 days of completion of the activities authorized under this Approval. At a minimum, this final report shall include: a short narrative of the project activities with photographic documentation; characterization and confirmation sampling analytical results; copies of the accompanying analytical chains of custody; field and laboratory quality control/quality assurance checks; an estimate of the quantity of PCB waste disposed of; copies of manifests and bills of lading; and, copies of certificates of disposal or similar certifications issued by the disposer. As required under Conditions 15 and 16 of this Approval, the Town shall submit the sample results of the long-term monitoring to EPA.

24. Required submittals shall be mailed to:

Kimberly N. Tisa, PCB Coordinator (OSRR07-2)
United States Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912
Telephone: (617) 918-1527
Facsimile: (617) 918-0527

25. No record, report or communication required under this Approval shall qualify as a self-audit or voluntary disclosure under EPA audit, self-disclosure or penalty policies.

****

END OF ATTACHMENT 1

TABLE 2A
SUMMARY OF SOURCE AND SUBSTRATE MATERIAL REMOVAL REQUIREMENTS
PCB INVESTIGATION
GUILFORD HIGH SCHOOL

Source ID #	SOURCE DESCRIPTION	SUBSTRATE IN CONTACT WITH SOURCE	SUBSTRATES MUST BE REMOVED UP TO THE COURSE INDICATED BELOW	EXCLUDED PRODUCT	QUANTITY	CONFIRMATORY SAMPLING PLAN AND TOTAL SAMPLE COUNT ESTIMATE	PCB CONCENTRATION (PPM)		Notes
							SOURCE	MAX SUBSTRATE	
1958 ORIGINAL BUILDING									
6	Grey caulk at CMU/ Brick wall joint	Brick, CMU, and Mortar	2nd Course	YES	10 LF	1 sample of each substrate 3 total samples	**1.2**	ND	
7	Grey caulk at gym window frame/sill	CMU and Mortar	2nd Course	YES	280 LF	2 samples of each substrate per window structure 24 total samples	**1.3**	ND	Concrete sills assumed a barrier
8	Felt beneath black asphalt vents, portholes, drain pans	Roofing Felt	To be determined	YES	<50 SF	1 sample of underlying decking material per 10 SF of felt 5 total samples	**1**	NA	
9	Beige caulk in CMU expansion joints	CMU and Mortar	2nd Course	YES	200 LF	1 sample of each substrate every 20 LF 10 total samples	**4**	ND	
12	White/black coating on flashing		All flashing will be removed	YES	120 LF	None	**1.9**	NA	Source material in contact with Metal Flashing, assumed to be a barrier.
14	Green rubbery caulk in metal siding		All siding and flashing in contact with source will be removed	YES	500 LF	None	**1.1**	NA	Primarily in contact with Metal Flashing, less than 1 ft. in contact with tar roof paper. Assumed to be a barrier.
30 & 31	Grey caulk at vent louvers and Residual grey window frame caulk	Brick and Mortar Glazed Brick and Mortar CMU and Mortar	3rd course 4th course 2nd Course	NO	600 LF	1 sample of each substrate per structure 200 total samples	**190,000**	**9.8**	
32	White caulk on building seams/sills	Brick and Mortar Concrete Window Sills Glazed Brick and Mortar	2nd Course 6" on both sides of caulk 2nd Course	NO	400 LF	1 sample of each substrate every 20 LF. Minimum of 5 samples of each substrate. 53 total samples	**1,600**	ND	
33	Dark grey caulk at building transition	Brick and Mortar	3rd course	NO	150 LF	1 sample of each substrate per expansion joint 20 total samples	**95,000**	**4.0**	
37	White rubbery caulk on plastic facia	Brick and Mortar	2nd Course	NO	500 LF	1 sample of each substrate every 20 LF. 50 total samples	**59**	ND	
39	White glazing in metal window frames	NA	Entire window structure	YES	All 1958 Windows	None	**1.4**	NA	All 1958 Windows
41	Black glazing in metal window frames	NA	Entire window structure	YES		None	**2.4**	NA	All 1958 Windows
51	Tan caulk at urinals	Tile and Mortar Seam	2nd Course	YES	160 LF	1 sample per urinal set 20 total samples	**1.1**	ND	
52	Red fire stop caulk	CMU	1" Around Caulk	YES	<1 SF	1 sample of each substrate per location 1 total sample	**1.1**	ND	Only observed at 1 area. Other areas may exist
53	Tan Caulk at CMU Expansion Joints	CMU and Mortar	2nd Course	NO	60 LF	1 sample of each substrate per expansion joint 12 total samples	**47**	0.62	

Attachment 2.

TABLE 2A
SUMMARY OF SOURCE AND SUBSTRATE MATERIAL REMOVAL REQUIREMENTS
PCB INVESTIGATION
GUILFORD HIGH SCHOOL

Source ID #	SOURCE DESCRIPTION	SUBSTRATE IN CONTACT WITH SOURCE	SUBSTRATES MUST BE REMOVED UP TO THE COURSE INDICATED BELOW	EXCLUDED PRODUCT	QUANTITY	CONFIRMATORY SAMPLING PLAN AND TOTAL SAMPLE COUNT ESTIMATE	PCB CONCENTRATION (PPM)		Notes
							SOURCE	MAX SUBSTRATE	
54	White window/door caulk	Brick and Mortar	2nd Course	NO	<50 LF	2 samples of each substrate per structure 6 total samples	**230**	ND	Observed at 3 locations. 2 windows and 1 door structure
55	Hard grey expansion joint caulk	CMU and Mortar	30" From Source	YES	300 LF	1 sample of each substrate every 20 LF. 30 total samples	**21**	**2.6**	
56	White caulk at metal window frame	CMU and Mortar	1" From Window Frame	YES	2,000 LF	2 samples of each substrate per structure 250 total samples	**17**	0.75	
57	Tan expansion joint caulk -CMU	CMU and Mortar	2nd Course	YES	500 LF	1 sample of each substrate every 20 LF. 50 total samples	**4.6**	ND	
59	Floor wax on Gym Floor	Wood Floor	Floor and Sleepers	YES	17,500 SF	Concrete chip samples to be collected from floor every 400 SF 45 total samples	**8.3**	NA	
TP	Tar paper/tar from beneath gym floor	Tar Paper and Concrete Floor	Tar Paper and Shot Blast Floor	NO	13,000 SF	Concrete chip samples to be collected from floor every 400 SF 35 total samples	**72**	NA	Concrete beneath tar paper/tar to be tested prior to shot blasting.
60	Tan caulk at architectural glass block	CMU and Mortar	2nd Course	YES	88 LF	2 samples of each substrate per structure 8 total samples	**3.8**	ND	Concrete sills assumed a barrier
61	Caulk at Greenhouse	Concrete Sill/Top of Wall	Top 2" of Sill/Wall	YES	100 LF	1 concrete chip sample every 20 LF 5 total samples	**1.2**	ND	
Roof 6 and 9	Black Roofing Tar and Tar Paper Beneath Rubber Roof	Roofing Material Above Metal Decking	All Roofing Material	YES	33,000 SF	None	**2.8**	NA	Metal decking assumed to for disposal
1968 ADDITION									
16	Clear caulk on metal window panels	NA	Entire structure to be removed	No	100 LF	None	**250**	NA	Source material not in Contact with Porous Substrate
20	Black caulk at louver	NA	Entire structure to be removed	YES	<100 LF (Roof)	None	**26**	NA	Source material not in contact with porous substrate. Source material only observed in one area, other areas may exist
23	Grey caulk at metal door/window frames	Brick and Mortar	2nd Course	YES	1,500 LF	2 samples of each substrate per structure 200 total samples	**20**	ND	
25	Black caulk at sash joint and window frames and panels (same as S-45)	NA	Entire structure to be removed	YES	Included in S-45	None	**4.4**	NA	Source material not in contact with porous substrate.
26	Black caulk at facia seams metal (same as S-45)	NA	Entire structure to be removed	YES	Included in S-45	None	**11**	NA	Source material in contact with flashing and not porous substrate.
27	Dark grey rubbery caulk at window frame	Brick and Mortar	2nd Course	YES	64 LF	2 samples of each substrate per structure 8 total samples	**9.4**	ND	

TABLE 2A
SUMMARY OF SOURCE AND SUBSTRATE MATERIAL REMOVAL REQUIREMENTS
PCB INVESTIGATION
GUILFORD HIGH SCHOOL

Source ID #	SOURCE DESCRIPTION	SUBSTRATE IN CONTACT WITH SOURCE	SUBSTRATES MUST BE REMOVED UP TO THE COURSE INDICATED BELOW	EXCLUDED PRODUCT	QUANTITY	CONFIRMATORY SAMPLING PLAN AND TOTAL SAMPLE COUNT ESTIMATE	PCB CONCENTRATION (PPM)		Notes
							SOURCE	MAX SUBSTRATE	
34	Black asphalt concrete flashing	Brick and Mortar	2nd Course	YES	200 to 600 LF	1 sample of each substrate every 20 LF. Up to 60 total samples	**3.2**	ND	Remove both sides of concrete foundation to brick wall seam. 200 feet observed additional material may be below grade in other sections of school
36	Grey glaze on metal window frames	NA	Entire structure to be removed	NO	<50 LF	None	**900**	NA	
40	Black glazing in metal window frames	NA	Entire structure to be removed	NO	On all 1968 windows	None	**2,400**	NA	
42	White brittle metal window frame caulk	Concrete	2" from Source	YES	32 LF	1 concrete sample	**2.3**	ND	
43	White rubbery metal door frame and expansion joint caulk	CMU and Mortar	2nd Course	YES	500 LF	1 sample of each substrate every 20 LF. 50 total samples	**6.4**	ND	
44	Black tar at CMU brick wall joint	Brick and Mortar	2nd Course	YES	70 LF	1 sample of each substrate every 20 LF. 8 total samples	**5.4**	ND	
45	Black metal window/ door frame caulk	Brick and Mortar Concrete Pad Below Door/Window Frames	2nd Course 2" from Source	YES	On all 1968 windows, vents and fascia	1 sample of each substrate per structure 400 total samples	**11**	ND	All 1968 Window/door structures
45A	Black glazing at metal window frames	NA	Entire structure to be removed	NO	On all 1968 windows	None	**120**	NA	
46	Black metal glazing compound at partition windows	NA	Entire structure to be removed	NO	250 LF	None	**410**	NA	
47/48	Grey/white expansion joint caulk	Brick and Mortar	30" From Source	NO	35 LF	1 sample of each substrate per expansion joint 12 total samples	**200,000**	**16**	
49	Hard tan caulk on metal window frames	Brick and Mortar	2nd Course	YES	<50 LF	1 samples of each substrate per structure 2 total samples	**10**	NA	
50	Brown glazing on wood door window	Wooden Doors	Entire Door	YES	50 doors	None	**2.2**	NA	
BCT-1968-1	Black Tar on Structural Steel	NA	Coated portions of I-beams to be removed or shot blasted	YES	2,500 LF	None if I-beams are disposed, 1 wipe sample per every 20 LF if shot blasted 125 total samples if cleaning is performed	2	NA	Sampling plan to be developed following Contractor Work Plan
Roof 10-T	Black Roofing Tar Beneath Rubber Roof	Roofing Material Above Metal Decking	All Roofing Material	YES	1,500 SF	None	8.5	NA	Metal decking assumed to for disposal
Roof 12-TP	Tar Paper/Roofing Material	Roofing Material Above Metal Decking	All Roofing Material	YES	30,000 SF	None	1.4	NA	Metal decking assumed to for disposal
GCT-1	Green counter tops in room 54	Wood Counter Legs	Entire Counter	YES	50 SF	None	1.4	NA	Dispose of entire counter

TABLE 2A

SUMMARY OF SOURCE AND SUBSTRATE MATERIAL REMOVAL REQUIREMENTS
PCB INVESTIGATION
GUILFORD HIGH SCHOOL

Source ID #	SOURCE DESCRIPTION	SUBSTRATE IN CONTACT WITH SOURCE	SUBSTRATES MUST BE REMOVED UP TO THE COURSE INDICATED BELOW	EXCLUDED PRODUCT	QUANTITY	CONFIRMATORY SAMPLING PLAN AND TOTAL SAMPLE COUNT ESTIMATE	PCB CONCENTRATION (PPM)		Notes
							SOURCE	MAX SUBSTRATE	
Electric motors and capacitors in heating units	Electric motors and capacitors in heating units	NA	NA	NO	100 units (Each room in 1968 addition)	None	NA	NA	Capacitors are assumed to be intact. If a release is observed the surrounding area will be assessed and remediated.
Air filters	Air filter material in heating units	NA	All filters	NO	100 units (Each room in 1968 addition)	None	NA	NA	

KEY	ANALYTICAL METHOD
NA = Not Applicable; ND = None Detected; LF = Linear Feet; SF = Square Feet	**SOXHLET EXTRACTION 8082 (Reporting Limit = <1PPM)**

NOTE:

- Source ID # references Table 1 and Sample Location Figures
- Column 4 indicates the end point of substrate removal meaning that all substrate up to the "2nd Course" must be removed i.e. the entire 1st course.
- Mortar is considered a separate substrate
- Window glazing compounds to be disposed of as noted on this table along with the entire window structure
- Materials with reported PCB concentrations <1 ppm must not be disposed of as PCB containing waste of any kind.

Substrate sample description

8-8-B-2-6-3 - First two numbers represent date sample collected (2012)

8-8-**B**-2-6-3 - Letter represents sample type (CMU(M)=Concrete Masonry Unit (Mortar); B(M)=Brick (Mortar); GB(M)=Glazed Brick (Mortar); CS=Concrete Sill; CONC=Concrete)

8-8-B-**2**-6-3 - Third number represents course or distance at which sample was collected from associated source material

8-8-B-2-**6**-3 - Fourth number represents source identification number associated with substrate sample

8-8-B-2-6-**3** - Fifth number represents sample number

Substrate sample location description

1 course of brick equals the length of 1 brick (8-inches), 2 courses equals the length of 2 bricks etc.

1 course of CMU equals the length of 1 CMU (16 inches), 2 courses equals the length of 2 CMU etc.

2" represents a sample location 2-inches away from the source material